Table 2 *Severity of urethritis in men with Reiter's disease or non-gonococcal urethritis (NGU)*

Score	No of men with: Reiter's disease (n = 27)	NGU (n = 25)
1	3	0
2	3	2
3	4	5
4	7	9
5	10	9
Total	27	25

group consisted of 27 patients who were in the early stages of an acute first attack of Reiter's disease, and the controls were 25 randomly selected men with NGU. Table 1 shows the point scoring system used to assess the severity of the urethritis, which meant that 5 was the maximum score and 1 the minimum.

Table 2 shows the numbers of men with Reiter's disease or NGU in relation to the severity of their urethritis. The χ^2 test showed no difference between the two diagnoses. As the urethral response showed the same range of severity in Reiter's disease and NGU, neither low grade nor severe urethritis was particularly associated with Reiter's disease. *Chlamydia trachomatis* has been isolated from about half the patients with NGU,[2] and this organism has also been linked aetiologically to Reiter's disease.[3] I therefore suggest that the cause and the severity of the urethritis is the same in NGU as in non-dysenteric Reiter's disease, which represents a more widespread clinical response.[4]

Yours faithfully,

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TO THE EDITOR, *Genitourinary Medicine*

New enzyme immunoassay (Pharmacia) compared with MicroTrak (Syva) to detect *Chlamydia trachomatis* in genital tract specimens

Sir,

Microbiology laboratories are faced with a growing demand to diagnose chlamydial infection, mainly from departments of genitourinary medicine (GUM). The methods most widely used are currently either isolation in cell culture, which is labour intensive, or direct immunofluorescent detection of elementary bodies in smears, which is fatiguing. There has therefore been a growing need for a sensitive, specific, and easily performed immunoassay.

This study was carried out to assess the diagnostic agreement between a new enzyme immunoassay (Chlamydia EIA; Pharmacia) and the routine immunofluorescence test (MicroTrak; Syva) used in this laboratory for the past four years.

Urogenital specimens were collected from 90 patients (57 men, 33 women), attending a GUM clinic. The incidence of chlamydial infection in specimens received from this clinic during the past two years was 18%. The patients were selected only on the basis of a high probability of chlamydial infection. Two specimens were taken from each patient (the urethras of men and the endocervices of women), and the order of taking the two swabs was randomised. One swab was used to prepare a direct smear for fluorescent antibody staining; the other was collected into storage buffer (Pharmacia) and stored at −20°C until tested by EIA, which detects *Chlamydia trachomatis* within three hours.

The results (table) show that the Pharmacia Chlamydia EIA was a sensitive (81·3%) and specific (98·7%) test that correlated well (95·6%) with the Syva MicroTrak stain. The order of swab collection made no appreciable difference to the results.

Table *New enzyme immunoassay (EIA; Pharmacia) compared with MicroTrak immunofluorescence (Syva) to diagnose chlamydial infection in 90 patients*

EIA	Immunofluorescence: Positive	Negative
Positive	10	1
Negative	3	76

Sensitivity of EIA 81·3%, positive predictive value 91·3%, specificity 98·7%, negative predictive value 96·9%, agreement with MicroTrak 95·6%, prevalence of *C trachomatis* in study group 14·4%.

Our previous experience with two commercially available EIAs to detect chlamydial antigen showed them to be insufficiently sensitive or specific for routine use. In common with other workers,[1] however, we have found the Syva MicroTrak direct smear test to be rapid, sensitive, and specific compared with culture.

The Pharmacia Chlamydia EIA is rapid, easy to use independent of the skills of a microscopist, not open to criticisms of subjective interpretation, and may be used to test large numbers of specimens. These preliminary results indicate that it is a good alternative to the direct smear test.

Yours faithfully,

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TO THE EDITOR, *Genitourinary Medicine*

Chlamydial infection: which antibiotic for patients with acute intermittent porphyria?

Sir,

A woman recently attended our clinic with *Chlamydia trachomatis* infection of the endocervix. She also suffered from acute intermittent porphyria, which raised the question about the most suitable antibiotic to prescribe. Advice was sought from Dr MR Moore DSc, Porphria Service, Western Infirmary, Glasgow, G11 6NT. Of the range of antibiotics suitable for chlamydial infection (rifampicin, sulphonamides, tetracyclines, erythromycin, and trimethoprim),[1] rifampicin, erythromycin, and sulphonamides are all totally contraindicated, and the action of trimethoprim and tetracycline is uncertain, in patients with acute intermittent porphyria. The least suspicion is attached to tetracyclines, and doxycycline in a single dose of 200 mg followed by 100 mg a day for six days was therefore prescribed; urinary porphyrin concentrations were also measured before and after treatment. In this case it transpired that doxycycline was entirely safe.

We therefore recommend that patients suffering from acute intermittent porphyria and requiring treatment for chlamydial infection are prescribed doxycycline with the proviso that urinary porphyrin concentrations are measured before and after treatment. This will also allow improvement of the Porphyrin Laboratory Data Bank.

Yours faithfully,
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TO THE EDITOR, *Genitourinary Medicine*

Electron microscopy to differentiate intestinal spirochaetosis from other conditions

Sir,

Intestinal spirochaetosis is present in up to 6·9% of hospital patients undergoing rectal biopsy, and a prevalence of over 30% has been reported in homosexual men.[1] Although its pathological importance is not certain, various clinical symptoms have been ascribed to infestation of the gastrointestinal tract with spirochaetes. These include diarrhoea, rectal discharge, and pain on defaecation. Sigmoidoscopic examination may or may not show normal appearances. The condition is recognised on light microscopy by the presence of a haematoxyphilic band coating the surface of the rectal mucosa. We report a case in which a similar basophilic band was present, but which was not due to spirochaetosis.

A man aged 72 presented with a six week history of diarrhoea that began one week after his return from Spain. He had had no homosexual contact. Physical examination was unremarkable, and sigmoidoscopic appearances were normal. Examination of a rectal biopsy specimen (fig, top) showed normal mucosal architecture and no evidence of inflammation. However, a basophilic band was present at the brush border of the mucosal surface, and the possibility of intestinal spirochaetosis was considered. Transmission electron microscopy of further material from the residual tissue in the paraffin block showed that the cause of the basophilic band was a dense layer of mucus attached to the surface of the brush border, and showed no evidence of

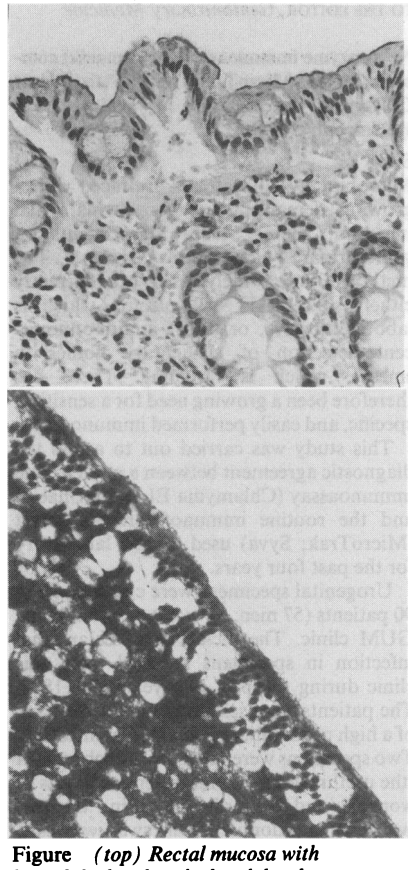

Figure *(top) Rectal mucosa with basophilic band at the brush border, an appearance similar to that seen in intestinal spirochaetosis. Electron micrograph (bottom) of surface of rectal mucosa showing dense layer of mucus on surface of the brush border. Normal numbers of microvilli present beneath mucus layer.*

spirochaetes (fig, bottom). No other organism was identified.

Though the presence of a basophilic band in a rectal mucosal biopsy specimen should alert the pathologist to the possibility of spirochaetosis, this case illustrates the fact that a similar appearance may be produced by other causes. The basophilic band in this case was slightly thinner than that normally associated with spirochaetosis, and individual spirochaetes could not be shown convincingly using the 100 x objective. Though these subtle differences may help in diagnosis, electron microscopy remains the final arbiter.

Yours faithfully,
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TO THE EDITOR, *Genitourinary Medicine*

Trichomonal vaginitis refractory to conventional treatment

Sir,

Recent reports in *Genitourinary Medicine*[1–3] have highlighted the difficulties in managing trichomonal vaginitis when conventional treatment with metronidazole has failed. There is a place for more aggressive treatment than suggested.

Metronidazole is well absorbed in the absence of gastrointestinal diseases and should be given by mouth rather than intravenously unless the patient is vomiting. It can safely be given by mouth in doses of up to 3 g a day for 14 days, but doses exceeding 4 g a day for 14 days have produced peripheral neuropathy, which may be prolonged and disabling.[4]

Two women seen recently have been cured only by high dose treatment. One, who had been given 17 different courses of treatment during two and half years without success, responded to oral metronidazole 3 g a day by mouth in divided doses and 1 g vaginally at night for 18 days. The second, similar, patient was cured by the same regimen, but for 14 days.

Two points seem worthy of emphasis. Firstly, the difficulty that many of us have in getting sensitivity tests performed on trichomonads that appear clinically to be resistant to metronidazole. Facilities for sensitivity testing using an acceptable standard method need to be made more easily available.[5] Secondly, vaccination has proved useful in the prophylaxis of recurrent trichomoniasis, although not in treating resistant organisms. In discussing its mode of action we should eschew references to "aberrant" and "different" strains of *Lactobacillus acidophilus*.[6] Such terms do not accord with modern microbiological concepts.[7]

Yours faithfully,
S A Seligman